

# The IEA Center and its contribution to Ribeirão Preto

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## Background

**R**IBEIRÃO Preto is a Brazilian city in the inland of the state of São Paulo, 313 km northwest of the state capital. This 650 km<sup>2</sup> city with a population of 612,339 known for the quality of its educational and health services, is also the economic center of an industrialized region that stands out for its urban and transport infrastructure.

The USP campus in Ribeirão Preto had a great influence on the development of both the region and the interior of the state of São Paulo. The training of qualified professionals has led to the establishment of a center of excellence in education, especially in academic and scientific production, which offers 24 undergraduate programs with 28 course options in the areas of Exact, Biological and Human Sciences. The consolidation of the academic units is due the excellence of their graduate education, with 36 masters and 31 doctoral programs that together account for about 5 percent of the entire scientific production in Brazil, documented in the ISI database. In the area of extension education and community services, among many other support activities the region has a university hospital with 780 beds, which is a center of excellence in health, and produces cutting-edge applied research, in addition to providing high complexity health care. Although the campus has several strong School and Faculties the campus did not have an academic Unit dedicated to reflecting on most comprehensive academic issues that could generate actions capable of integrating the knowledge produced by the teaching and research units and scientific programs.

The directors of the schools on the USP Ribeirão Preto campus had been working since 1999 to extend the activities of the *Instituto de Estudos Avançados* – IEA (Institute of Advanced Studies) to the Ribeirão Preto campus through the establishment of a local center. Although events and some short-term activities were already being held, these directors felt the need to perpetuate the activities of the IEA-USP locally. In 2009, after several statute suitability studies conducted by the IEA-USP and that enabled the establishment of Centers in many USP campuses, the creation of the IEA regional center in Ribeirão Preto was finally approved. The coordinator of the Center is Professor Oswaldo Baffa Filho from the School of Philosophy, Sciences and Letters of Ribeirão Preto (FFCLRP), who was chosen for this four year term on September 29 of that

same year, from a list of three names prepared by the Advisory Council of the Institute. It was officially opened at a temporary location on November 4, 2009.

The research carried out on the Ribeirão Preto campus gained a new ally in order to be coordinated between units and disseminated to society and the scientific community. Given the characteristics of the campus and its region of coverage, initial themes were proposed to be developed with the consolidation of the activities of the IEA. These themes included: 1 Public and Family Health; 2 Technology and Innovation in Health; 3 Agribusiness and Regional Development; and 4 Scientific Education and Dissemination.

### **Mission and objectives**

The IEA is aware of the importance of its mission as an USP Institute. This mission includes researching and discussing, in depth and comprehensively, fundamental issues related to the basic sciences (Exact, Biological and Humanities), as well as to health, technology, arts and other areas of knowledge, thus stimulating interdisciplinarity, promoting innovation and contributing to the analysis of social issues and the formulation of public policy.

The mission of the IEA is included in the definition of modern University that guides the USP and involves, besides the development of each area of knowledge, initiatives to stimulate the establishment of interfaces and the analysis of comprehensive and complex social and theoretical issues. The Institute believes that this mission should be pursued in close collaboration with the USP Units and other universities and academic institutions, and should also aim to integrate its activities into an international context, encouraging the universality of the knowledge generated by the units.

In addition, the IEA in Ribeirão Preto seeks to promote the extension and integration of activities with the IEA campus in São Paulo, maintaining an effective cooperation and in tune with the general principles of interdisciplinarity, multidisciplinary, high scientific and cultural level, and meeting the regional academic and community goals.

It seeks to implement programs and projects in the areas of scientific, technological, educational and cultural development, building on the strong base of human and institutional resources existing in the Ribeirão Preto campus, as well as to deepen the discussion of topics of importance to communities of researchers. Interacting with other local and regional peers is also one of the objectives of the IEA in Ribeirão Preto, in the university-society relations as business incubators, Technological Park and support in the formulation of public policies for the scientific and technological development of Brazilian society.

### **Academic structure and production of the IAS**

The IEA has an academic structure that differs from that of the other USP units and requires special planning and resources. It includes visiting professors, collaborating professors, researchers, research groups, academic chair and agreements.

The production of the IEA consists of: (1) study activities by research groups and faculty members around leading edge topics, with the generation of proposals for events, documents and publications; (2) organization of congresses, symposia, seminars and lectures; (3) publication of the *Estudos Avançados* journal as well as of books and articles on the topics investigated, with special emphasis on the electronic media.

To carry out its activities, the IEA will be structured to develop projects, seek and provide assistance to researchers and stimulate collaboration agreements with units and society. This administrative structure should support the coordination of research relations and outreach in the local research community of the University of São Paulo. The structure should enhance the production of knowledge on topics that cut across the units and whose complexity requires special knowledge and visions that are found in the synergy of the relationship between different fields of knowledge.

The research and teaching units on the Ribeirão Preto campus and its community of researchers have supported the consolidation of the IEA Center. Noteworthy is the IT Center of Ribeirão Preto (*Centro de Informática de Ribeirão Preto* - CIRP), where IEA is temporarily located and holds its events, and the Coordinating Unit of the USP campus in Ribeirão Preto, which provided administrative support for the beginning of operations.

### **Topics addressed by the IEA Center in Ribeirão Preto**

The IEA Center in Ribeirão Preto seeks to relate the research and themes generated by the scientific community of the Ribeirão Preto campus to the demands for national and regional studies. Despite its recent history and the activities to implement the administrative structure of the Center, progress has been made towards consolidating lines of study and involving the local community in the activities of the Center. The establishment of research groups on specific topics such as low carbon economy and the incorporation of technology in health care is in the consolidation phase.

Other activities have been developed on topics suggested by the community, which had a significant participation. The topics covered include:

- Energy in the state of São Paulo and sustainability
- Metrics in sustainability
- Accumulation of knowledge about biodiversity and regional conservation strategies.
- Intracranial pressure
- Challenges for Basic Education in Brazil
- Fires in the Amazon and their effects on the ecosystem and public health
- Environmental Policy
- Technological parks
- Carbon nanotechnology and related materials

- Economic modeling for the study of climate policies, biofuels and changes in land use
- LNLS (National Laboratory of Synchrotron Light): past, present and future.
- Challenges and Proposals for Brazil in Science, Technology and Innovation (STI) for the twenty-first century.
- Science, communication and football: the spiral of scientific culture
- Thirty-seven years of work at the Serra da Capivara - Piauí
- Global climate change and the role of Brazil
- CNPq and the S&T system in Brazil: challenges and opportunities
- New forms of academic organization: the example of EACH-USP

### **Projects for the future**

The IEA Center in Ribeirão Preto seeks to articulate the research community on campus to provide solutions to the complex demands of Brazilian society and the academic community. It also seeks to enhance the influence of the university in the local and national community, by taking academic research to society and bringing to the university the problems to which society would like to find solutions. With this introduction, it is important to organize administratively the IEA Center by establishing its own headquarters, a strategic project already agreed upon with the units of the Ribeirão Preto campus and addressed as a management priority. At the headquarters in Ribeirão Preto there will be room for an auditorium and to house visiting professors and institutional research.

Accordingly, the aim is to bring to the University issues on intellectual, economic and social development. To materialize these objectives, research groups on topics that are not common to teaching and research units are being established and maintained. Two groups are currently being set up: one on low-carbon economy and another in the area of incorporation and evaluation of technology in health care.

The creation of academic chairs is another of the Center's projects aimed to bring international researchers temporarily settled in Ribeirão Preto to collaborate in specific projects. In addition, the project to disseminate research activities in specific seminars of interest to the academic community will continue, along with mechanisms of dissemination to the mainstream media such as newsletters, press releases, updating and maintenance of electronic media and other activities that will be possible thanks to the staff hired for the IEA Center in Ribeirão Preto.

Complex research potentially useful to society is the main product that the *Instituto de Estudos Avançados* at the University of São Paulo, along with the units of the Ribeirão Preto campus intends to offer in order collaborate with the development of both the country and the University.

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